



DEPARTMENT OF THE AIR FORCE
59TH MEDICAL WING (AETC)
JOINT BASE SAN ANTONIO - LACKLAND TEXAS

22 FEB 2017

MEMORANDUM FOR ST

ATTN: LT COL JACQUELINE KILLIAN

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **The Impact of A Novel Bio-Behavioral Intervention on Physiologic State, Perceived Stress and Affect** presented at/published to **Podium and Poster Abstract for San Antonio Military Health System (SAMHS) & Universities Research Forum, San Antonio, TX, 16 June 2017** in accordance with MDWI 41-108, has been approved and assigned local file #**17104**.
2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are 59 MDW staff member, we can forward your request for funds to the designated wing POC.
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

INSTRUCTIONS

USE ONLY THE MOST CURRENT 59 MDW FORM 3039 LOCATED ON AF E-PUBLISHING

1. The author must complete page two of this form:
 - a. In Section 2, add the funding source for your study [e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE) (SG5 O&M); SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP) ; Grants; etc.]
 - b. In Section 2, there may be funding available for journal costs, if your department is not paying for figures, tables or photographs for your publication. Please state "YES" or "NO" in Section 2 of the form, if you need publication funding support.
2. Print your name, rank/grade, sign and date the form in the author's signature block or use an electronic signature.
3. Attach a copy of the 59 MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g. case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box.
4. Attach a copy of your abstract, paper, poster and other supporting documentation.
5. Save and forward, via email, the processing form and all supporting documentation to your unit commander, program director or immediate supervisor for review/approval.
6. On page 2, have either your unit commander, program director or immediate supervisor:
 - a. Print their name, rank/grade, title; sign and date the form in the approving authority's signature block or use an electronic signature.
7. Submit your completed form and all supporting documentation to the CRD for processing (59crdpubspres@us.af.mil). **This should be accomplished no later than 30 days before final clearance is required to publish/present your materials.** If you have any questions or concerns, please contact the 59 CRD/Publications and Presentations Section at 292-7141 for assistance.
8. The 59 CRD/Publications and Presentations Section will route the request form to clinical investigations, 502 ISG/JAC (Ethics Review) and Public Affairs (59 MDW/PA) for review and then forward you a final letter of approval or disapproval.
9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. **Note:** For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.
10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DTIC). See 59 MDWI 41-108, *Presentation and Publication of Medical and Technical Papers*, for additional information.
11. The Joint Ethics Regulation (JER) DoD 5500.07-R, *Standards of Conduct*, provides standards of ethical conduct for all DoD personnel and their interactions with other non-DoD entities, organizations, societies, conferences, etc. Part of the Form 3039 review and approval process includes a legal ethics review to address any potential conflicts related to DoD personnel participating in non-DoD sponsored conferences, professional meetings, publication/presentation disclosures to domestic and foreign audiences, DoD personnel accepting non-DoD contributions, awards, honoraria, gifts, etc. The specific circumstances for your presentation will determine whether a legal review is necessary. **If you (as the author) or your supervisor check "NO" in block 17 of the Form 3039, your research or technical documents will not be forwarded to the 502 ISG/JAC legal office for an ethics review.** To assist you in making this decision about whether to request a legal review, the following examples are provided as a guideline:

For presentations before professional societies and like organizations, the 59 MDW Public Affairs Office (PAO) will provide the needed review to ensure proper disclaimers are included and the subject matter of the presentation does not create any cause for DoD concern.

If the sponsor of a conference or meeting is a DoD entity, an ethics review of your presentation is not required, since the DoD entity is responsible to obtain all approvals for the event.

If the sponsor of a conference or meeting is a non-DoD commercial entity or an entity seeking to do business with the government, then your presentation should have an ethics review.

If your travel is being paid for (in whole or in part) by a non-Federal entity (someone other than the government), a legal ethics review is needed. These requests for legal review should come through the 59 MDW Gifts and Grants Office to 502 ISG/JAC.

If you are receiving an honorarium or payment for speaking, a legal ethics review is required.

If you (as the author) or your supervisor check "YES" in block 17 of the Form 3039, your research or technical documents will be forwarded simultaneously to the 502 ISG/JAC legal office and PAO for review to help reduce turn-around time. If you have any questions regarding legal reviews, please contact the legal office at (210) 671-5795/3365, DSN 473.

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement:

"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving humans:

"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02_AFI 40-402."

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving animals, as required by AFMAN 40-401_IP :

"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS			
1. TO: CLINICAL RESEARCH	2. FROM: (Author's Name, Rank, Grade, Office Symbol) Killian, Jacqueline, Lt Col, O-5, 59 MDW/ST	3. GME/GHSE STUDENT: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	4. PROTOCOL NUMBER: FWA 00001628
5. PROTOCOL TITLE: (NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.) Pilot Investigation of a Bio-behavioral Intervention's Impact on Physiologic State, Perceived Stress & Affect			
6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED: The Impact of a Novel Bio-behavioral Intervention on Physiologic State, Perceived Stress and Affect			
7. FUNDING RECEIVED FOR THIS STUDY? <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO FUNDING SOURCE:			
8. DO YOU NEED FUNDING SUPPORT FOR PUBLICATION PURPOSES: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
9. IS THIS MATERIAL CLASSIFIED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
10. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT ETC.? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NOTE: If the answer is YES then attach a copy of the Agreement to the Publications/Presentations Request Form.			
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<input type="checkbox"/> 11a. PUBLICATION/JOURNAL (List intended publication/journal.)			
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<input checked="" type="checkbox"/> 11e. OTHER (Describe: name of meeting, city, state, and date of meeting.) Podium and poster abstract for San Antonio Military Health System (SAMHS) & Universities Research Forum, SA, TX Friday 6/16/2017			
12. HAVE YOUR ATTACHED RESEARCH/TECHNICAL MATERIALS BEEN PREVIOUSLY APPROVED TO BE PUBLISHED/PRESENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ASSIGNED FILE # 16160 DATE 15April 2016			
13. EXPECTED DATE WHEN YOU WILL NEED THE CRD TO SUBMIT YOUR CLEARED PRESENTATION/PUBLICATION TO DTIC NOTE: All publications/presentations are required to be placed in the Defense Technical Information Center (DTIC).			
DATE 30 Aug 2017			
14. 59 MDW PRIMARY POINT OF CONTACT (Last Name, First Name, M.I., email) Killian, Jacqueline M jacqueline.killian@us.af.mil			15. DUTY PHONE/PAGER NUMBER 757-810-0686
16. AUTHORSHIP AND CO-AUTHOR(S) List in the order they will appear in the manuscript.			
LAST NAME, FIRST NAME AND M.I.	GRADE/RANK	SQUADRON/GROUP/OFFICE SYMBOL	INSTITUTION (If not 59 MDW)
a. Primary/Corresponding Author Jacqueline Killian	O-5/Lt Col	59 MDW/ST	
b.			
c.			
d.			
e.			
17. IS A 502 ISG/JAC ETHICS REVIEW REQUIRED (JER DOD 5500.07-R)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401_IP, AND 59 MDWI 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.			
18. AUTHOR'S PRINTED NAME, RANK, GRADE Jacqueline M Killian, Lt Col, O-5		19. AUTHOR'S SIGNATURE KILLIAN JACQUELINE M.1050091976	20. DATE 16Feb2017
21. APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE Brenda J. Morgan, Col, Dir Nursing Research Division		22. APPROVING AUTHORITY'S SIGNATURE MORGAN BRENDA J.1135106085	23. DATE February 16, 2017

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS		
1st ENDORSEMENT (59 MDW/SGVU Use Only)		
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26. DATE REVIEWED 21 Feb 2017	27. DATE FORWARDED TO 502 ISG/JAC	
28. AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES If yes, give date. _____ <input type="checkbox"/> N/A		
29. COMMENTS <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED The abstract is approved.		
30. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Rocky Calcote, PhD, Clinical Research Administrator	31. REVIEWER SIGNATURE CALCOTE ROCKY D.1178245844 <small>Digitally signed by CALCOTE ROCKY D.1178245844 DN: cn=US, ou=5, email=rocky.d@hhs.gov, c=US Date: 2017.02.21 13:44:41 -0500</small>	32. DATE
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42. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Kevin Iinuma, SSgt/E-5, 59 MDW Public Affairs	43. REVIEWER SIGNATURE IINUMA KEVIN MITSUGU.1296227 613 <small>Digitally signed by IINUMA KEVIN MITSUGU.1296227 DN: cn=US, ou=5, email=kevin.i@hhs.gov, c=US Date: 2017.02.22 16:17:21 -0500</small>	44. DATE February 22, 2017
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THE IMPACT OF A NOVEL BIOBEHAVIORAL INTERVENTION ON PHYSIOLOGIC STATE, PERCEIVED STRESS AND AFFECT

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Background: Our nation is suffering from the consequences of the stresses associated with the past 16 years of war.¹⁻³ US employers spend \$300 billion a year for employee medical care and lost days from work due to stress.⁴ The search for innovative and cost effective means of mitigating the effects of stress is needed now more than ever and was the basis for this pilot investigation. Laughter yoga (LY) fosters positive emotions, engagement, relationships, meaning and accomplishment (PERMA), the active components of wellbeing that make up the evidence-based model of wellbeing developed within the field of Positive Psychology.⁵ Our study's purpose was to explore the practice of the biobehavioral intervention, LY, as an intervention to mitigate the physiologic and psychological effects of stress for a military graduate student population.

Materials & Methods: Mixed method quasi-experimental pre-test post-test wait-listed group design. Participants included 41 military medical and allied health graduate students age 23-52 ($M=31$), randomly assigned to experimental and wait-listed control groups. The experimental group met for an hour LY session twice a week for first two weeks, while control continued with usual activities. Wait-listed control participated in LY during weeks three and four, while experimental group then returned to regular academic and life behaviors. Measures were collected at baseline, after two weeks and then again after four weeks. Physiologic measures and self-report measures were also collected before and after each laughter yoga session. Outcome measures included: heart rate variability, peak expiratory flow rate, Perceived Stress Scale, Positive Affect Negative Affect Scale, Patient Health Questionnaire 8, Standard Form 36, and Connor-Davidson Resilience Scale scores, as well as participant responses to open-ended questions. Data analysis conducted using SPSS (v.22) for parametric and nonparametric testing; thematic analysis of open ended responses to

Results: Subjects showed statistically significant decreases in measures of heart rate variability and increases in peak expiratory flow rate, positive affect, resilience and general health and mental health scores when compared to baseline. Participants reported improvements in mood, relationships and health behaviors in responses to open-ended questions.

Conclusions: This pilot study provides preliminary evidence that laughter yoga may improve peak expiratory flow rate, psychological health and lead to unexpected benefits in personal, social and professional relationships.

Key Words: Laughter Yoga, Heart Rate Variability, Peak Expiratory Flow Rate, Perceived Stress, Positive Affect, Resilience

Acknowledgments: This research was funded by the Jonas Center for Nursing and Veterans Healthcare and the Uniformed Services University of the Health Sciences (USUHS). Support and resources were also provided by the Traumatic Injury Research Program (TIRP), Military & Emergency Medicine Department of USUHS. Dr. Penny Pierce, Dr. Catherine Ling, Dr. Paul Rapp, Dr. David Keyser, Dr. Dominic Nathan and Dr. Cara Olsen are acknowledged for their guidance, patience, support and encouragement throughout the research process, and Migdalia Hettler and Kylee Bashirelahi, critical members of the research team, for their assistance and professional reinforcement.

DISCLAIMER: The views expressed are those of the author(s) presenter(s) and do not reflect the official views or policy of the Uniformed Services University of the Health Sciences, the Department of Defense, or its components. The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02_AFI40-402.

References

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